

Notice of Allowability

Application No.

09/997,638

Examiner

Ramesh B. Patel

Applicant(s)

PECK ET AL.

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/17/2004.
2. ☒ The allowed claim(s) is/are 1,3-10,12-20 and 22-73.
3. ☒ The drawings filed on 28 November 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Ramesh B. Patel
Primary Examiner
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DETAILED ACTION

1. Claims 1, 3-10, 12-20 and 22--73 are allowed.
2. The following is an examiner's statement of reasons for allowance: the prior art of the record fails to teach or fairly suggest in combination with the other elements and features of the claimed invention regarding claims 1, 3-10, 12-20 and 22-28, a system, a method and a carrier medium for controlling motion of an object, comprising: determine a placement of pulses for each of a plurality of time intervals wherein the pulses have an average desired pulse rate across the plurality of time intervals wherein in the quantity of pulses in each of the time intervals is variable wherein determining the placement of pulses for each of the plurality of time intervals, the motion control software program is executable by the processor to determine a placement of pulses for a first time interval at a first rate of pulse generation per time interval, the first rate having a value of 1 plus an integer portion of a desired fractional rate of pulse generation per time interval; and determine a placement of pulses for a second time interval following the first time interval at a second rate having a value of the integer portion of the desired fractional rate of pulse generation; regarding claims 29-70, a system, a method and a carrier medium for controlling motion of an object, comprising: determining a placement of one or more pulses for each of at least a subset of a plurality of time intervals, wherein two or more of the at least a subset of the plurality of time intervals have differing quantities of pulses, wherein each time interval that

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includes one or more pulses includes a first pulse and a last pulse, and wherein a deadband between the start of the last pulse in the time interval and the end of the time interval is no larger than a largest pulse period in the time interval; regarding claims 71-73, a system, a method and a carrier medium for controlling motion of an object, comprising: determining a desired overall average step pulse period for a plurality of time intervals, where the desired overall average step pulse period is non-integer number of clock cycles, nor determining a desired average step pulse period for each of the plurality of time intervals, where at least a subset of the desired average step pulse periods have a non-integer number of clock cycles, for each interval of the plurality of intervals, determining one or more actual step pulse periods, each having an integer number of clock cycles, and/or modifying the interval, where the one or more actual step pulse periods and/or the modified intervals for the plurality of intervals approximate the desired overall average step pulse period over the plurality of time intervals and determining a placement of pulses for each of the plurality of time intervals based on the determined one or more actual step pulse intervals, and/or the modified intervals.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh B. Patel whose telephone number is 703-308-6673. The examiner can normally be reached on M-Th; 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 703-308-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ramesh B. Patel
Primary Examiner
Art Unit 2121
7/20/04

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